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Market survey of South China Dairy Products

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Report Highlights:

China's dairy industry is undergoing a "white revolution" as demand for dairy continues to rise and extensive restructuring takes place on the supply side. Dairy sales reached \$9.5 billion in 2005 and are expected to grow rapidly as per-capita dairy consumption continues to rise. Fluid milk sales are at the forefront of this growth, followed by ice cream, yogurt and cheese. As demand increases, fierce competition among China's 1,600 processors has forced many local and international companies out of the market. In 2005, the U.S. became the second largest exporter of dairy products to China with sales of \$60.5 million.

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South China Dairy Products Market Profile

I) Executive Summary

China's dairy industry is rapidly changing as demand for dairy continues to rise and extensive restructuring takes place on the supply side. Dairy sales reached US \$9.5 billion in 2005, reflecting a more than 70 percent hike since 2000. This growth is expected to continue at an annual pace of eight to nine percent through 2010.

At just 13 kg, China has one of the lowest per-capita dairy consumption levels in the world. Contrary to popular belief, it is low incomes, and not lactose intolerance, that has traditionally been a detriment to dairy product purchases. But rising incomes, changing lifestyles, higher quality products and improved availability are helping consumption levels to skyrocket. In fact, industry experts predict dairy consumption could double in the next ten years.

Fluid milk is the leader of China's growing consumption habits. Retail sales have expanded by 215 percent since 2000, reaching nearly \$4.1 billion in 2005. Growth in sales of milk powder is slowing, but ice cream and yogurt sales continue to increase at a rapid pace. Sales of cheese last year grew 18 percent over 2004 to reach \$49.7 million, making it a small but rapidly emerging dairy market.

While demand is on the rise, China's dairy industry is also presented with many challenges. Recent food safety scandals and continuing price wars have plagued the industry and many of the country's 1,600 processors struggle to make a profit. International players have experienced similar challenges, and have also found it difficult to tap into China's intricate distribution networks.

New labeling laws may also impact the sale of several dairy products. Effective October 1, 2005, "The General Rule on Labeling of Pre-Packed Foods – GB7718-2004" requires that all fluid milk products containing reconstituted milk (as much of the country's yogurt, ice cream and even UHT milk does) must state "reconstituted" and indicate percentages of milk. Already, some European-branded yogurt products have had to drop prices due to lower demand for their reconstituted products. Also, pasteurized, non-UHT milk, is no longer allowed to be labeled as "fresh" and can only be labeled as "pasteurized" or "pure."

The U.S. now ranks second in the world for dairy exports to China, with sales of \$60.5 million in 2005. Sales volume reached 83,350 MT, up 12 percent from 2004. Strong U.S. exports are expected to persist, as the devalued U.S. dollar and reduced dairy subsidies in the EU will also continue to favor imports of U.S. products. China is now seventh largest market for U.S. dairy products by value and ranks tenth in terms of export volume.

II) China's White Revolution: The growing demand for dairy

China's dairy industry is undergoing a "white revolution" as demand for dairy continues to rise and extensive restructuring takes place on the supply side. Dairy sales reached US \$9.5 billion in 2005, reflecting a more than 70 percent hike since 2000. This growth is expected to continue at an annual pace of eight to nine percent through 2010.

Traditionally, dairy has not played a big role in Chinese diets, especially in the south, and this is reflected in the country's low consumption levels. In fact, at just 13 kg, China's per-capita consumption of dairy products is one of the lowest in the world. It is roughly one-third the Asian average of 35 kg, significantly lower than the world average of 100 kg, and far behind the nearly 300 kg per person consumption level of some developed nations. But it's growing fast. Per-capita consumption has more than doubled since 1995 and analysts predict it could double again by 2015. Multiple that additional 13 kg per person by China's 1.3 billion people, and that's a lot of milk.

There are many factors contributing to China's burgeoning demand for dairy. One of the most significant may be the rise in disposable incomes, which have expanded twofold over the last decade. Thanks to the favorable income elasticity of dairy products in China, a small growth in income corresponds to a significant boost in consumption.

Consumers are also becoming more health conscious and are attracted to the many positive attributes of dairy products. A larger share of the public now values dairy as a good source of energy, protein and calcium. While dairy sales are seeing across the board increases, some of the biggest growth categories are reduced fat milk and products fortified with vitamins and minerals.

The government likewise recognizes the importance of dairy in the Chinese diet. As a result, it has initiated school milk programs aimed at increasing consumption among children. These programs reached more than 15 million students in 2005. It also has a military milk program and recently aired a series of programs on state-run television focusing on the benefits of dairy consumption.

These factors have helped transform the perception of dairy as a supplemental food for the elderly and ill to an everyday staple for all age groups. Also, many historical barriers to milk consumption have been greatly reduced- namely, high prices, poor refrigeration and limited production in southern coastal areas. The introduction of shelf-stable UHT milk has been a tremendous boon to the industry, eliminating the need for cold-chain distribution and facilitating the movement of fluid milk from concentrated production areas in the north to population centers in the south.

At the same time, prices are declining and cold-chain distribution for fresh milk, yogurt and ice cream is slowly improving. A wide selection of dairy products- including both fresh and UHT-preserved milk, creatively flavored yogurt drinks, and a plethora of novelty ice creams- is now available from supermarkets, convenience stores and home delivery services in metropolitan areas across China. At home, more than 90 percent of urban households own refrigerators, providing the ability to properly store high-quality milk and dairy products.

But other challenges hinder China's dairy prospects as well. For starters, many Chinese are lactose intolerant. Although much debate exists about the actual number, estimates show as many as 60 to 90 percent of Chinese people may lack the enzymes necessary to properly digest milk and its products. But there is some belief that the discomfort many older Chinese initially feel after drinking results because they are not used to processing these enzymes, not having regularly digested lactose since birth like many Westerners. A gradual

introduction of dairy into the diet and consuming easy-to-digest products such as yogurt may help dampen the effects of this problem. Young Chinese, for example, can be seen on the weekends enjoying various dairy products including ice cream and flavored yogurt. Fruit smoothies, which often include dairy ingredients, are also becoming increasingly popular with young people.

Recent food safety scandals have also shaken consumer confidence in dairy products. Just in the last five years, rumors of reprocessing expired milk, pre-dating products and adding water to milk have brought the safety of many dairy products into question. Powdered milk infant formula suffered especially hard following a case where several babies died from malnutrition after drinking formula with no dietary value. Crisis management following these scandals was slow and several major companies suffered serious losses. In the future, crisis prevention and brand management issues will be paramount to maintaining consumer trust.

III) Introduction to South China

According to recent AP estimates, China is poised to become the world's second largest retail goods market behind the United States by 2020. The six-province region that makes up South China is home to 22% of the nation's population, or 281 million people. Comprised of Fujian, Guangdong, Guangxi, Guizhou, Hainan and Hunan provinces, South China has long been at the forefront of the nation's rapid economic development. In fact, it was the first region in China with liberalized markets after reforms in the late 1970's.

Five Special Economic Zones (SEZs) – free trade zones which allow and encourage foreign investment and provide trade incentives – exist in the region: Shenzhen, Zhuhai and Shantou in Guangdong Province; Xiamen in Fujian Province; and Hainan Island. These coastal SEZs along with the industrial metropolis of Guangzhou all boast relatively high per-capita incomes and growing populations of sophisticated, white-collar consumers.

Guangdong Province's proximity to Hong Kong also contributes to the growing modernization and westernization of its urban residents. Historically, foreign products could not be imported directly to the mainland. These goods often traveled through Hong Kong first. Consequently, Guangdong's residents have long enjoyed high-end imports, and supply chains from Hong Kong to Shenzhen and Guangzhou are well developed. As incomes continue to rise and the middle class continues to grow in South China's coastal cities, the demand for premium goods is expected to increase as well. Additionally, supply chains through Guangdong and Fujian to locales farther inland are helping to modernize cities such as Hunan's Changsha, where the market for high-end imports is smaller but growing. As these supply chains improve, dairy product availability will likely expand further into second and third tier cities.

FIGURE 1: Southern China



When it comes to dairy consumption, there are several characteristics that set South China apart from the rest of the country. Actual dairy consumption by both rural and urban households in the region is somewhat less than the national average. This is likely due to differences in traditional diets; also, comparatively high consumption levels in Beijing and Shanghai have raised the national average.

Consumption of imported dairy products is quite high in south China. For example, research from the Center for Agricultural and Rural Development (CARD) indicates that roughly 66 percent of households in Guangzhou have purchased imported dairy products, citing cost, availability and safety as the major reasons for doing so¹. The same report revealed that Guangzhou residents tend to buy more milk powder but significantly less fluid milk than their Beijing and Shanghai counterparts. The study also discovered that children account for a larger percentage of consumption in Guangzhou households than their parents, a positive sign for future dairy sales in the region.

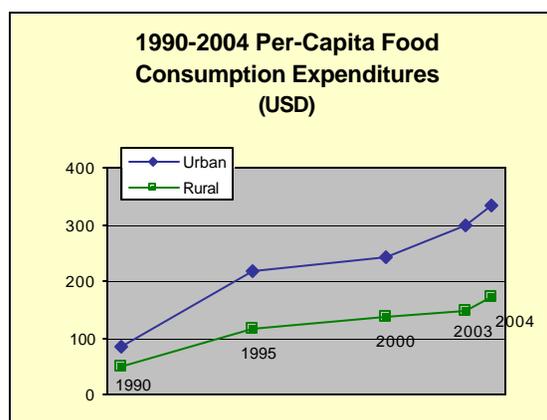
IV) Consumption levels in China: The Rural/Urban Divide

A huge divide exists between urban and rural China, and understanding the differences between consumers is a key issue for American exporters wishing to penetrate the Chinese market. In 2004, the reported average urban per capita income was US\$1163 (up 11.2 percent from 2003), while the reported average rural per capita income was only US\$362 (up 12 percent from 2003). The similarity in growth rates is a promising sign for the future development of rural China, but the fact that urban incomes more than triple rural incomes testifies to city-dwellers' large relative purchasing power.

As disposable incomes rise, consumers, both urban and rural, are spending a smaller percentage of their income on food. In 2004, urban consumers spent 28.8 percent of disposable income on food, compared to 31.4 percent in 2000. Over the same time period, food expenditures for their rural counterparts have decreased from 36.4 percent to 35.1 percent. But because good meals signify prosperity in China, actual spending on food and dairy products continues to rise.

Both urban and rural per-capita dairy consumption have experienced explosive growth in recent years. Reaching 18.83 kg in 2004, per-capita urban consumption increased 89.4 percent from 9.94 kg/person in 2000. Over the same time period, per-capita rural consumption rose 86.8 percent from 1.06 kg in 2000 to 1.98 kg in 2004.² While both rural and urban per capita consumption increased at a similar pace percentage-wise, there is still a huge gap in consumption levels.

FIGURE 2



Source: National Bureau of Statistics of China

¹ Fuller, Frank H., John C. Beghin, and Scott Rozelle. "Urban Demand for Dairy Products in China: Evidence from New Survey Data." Center for Agricultural and Rural Development, Iowa State University. Nov. 2004.

² National Bureau of Statistics of China

TABLE 1: Urban and Rural Food Expenditures by Region

Region	Urban					Rural*		
	Per Capita Disposable Income (USD)	Per Capita Food Expenditures (USD)	% of Disposable Income	Per Capita Spending on Dairy (USD)	% of Food Expenditures	Per Capita Disposable Income (USD)	Per Capita Food Expenditures (USD)	% of Disposable Income
National	1163.16	334.52	28.8%	16.34	4.9%	362.52	127.40	35.1%
Fujian	1379.68	419.09	30.4%	19.92	4.8%	504.86	173.89	34.4%
Guangdong	1682.43	488.06	29.0%	15.73	3.2%	539.00	195.27	36.2%
Guangxi	1072.84	336.68	31.4%	12.39	3.7%	284.60	129.33	45.4%
Guizhou	903.96	279.07	30.9%	10.69	3.8%	212.54	93.13	43.8%
Hainan	955.03	336.15	35.2%	10.51	3.1%	347.85	126.90	36.5%
Hunan	1063.89	306.12	28.8%	12.16	4.0%	350.34	165.27	47.2%
South China	1176.30	360.86	30.7%	13.57	3.8%	373.20	147.30	39.5%
Source: 2005 China Statistical Yearbook								
*Statistics not available for rural dairy spending								
1 USD=8.1 RMB								

There are several explanations for this disparity. Distribution is much more limited in rural areas. Also, while roughly 90 percent of urban households own a refrigerator, less than 18 percent of their rural counterparts own the appliance. In urban areas, consuming dairy is considered chic, healthy, and a sign of affluence. Therefore, it is not surprising that the majority of Chinese dairy consumption takes place in metropolitan areas, where the urban middle and upper classes comprise the vast majority of the market for retail fluid milk sales. U.S. exporters who want to introduce their products on the mainland may find success most easily in the coastal cities of China. McDonalds, KFC and Häagen Dazs are already experiencing great success in these areas with sales of ice cream products.

V) Dairy Products Profiles

Dairy products in South China continue to evolve, responding to consumers' ever-changing lifestyles. Health is a growing concern among consumers, so it's no surprise that sugar free, low-fat, and vitamin and mineral fortified products are quickly becoming popular. This report summarizes trends among the biggest categories for dairy sales in China.

Fluid Milk: The battle between UHT & "fresh"

With a 215 percent increase in retail sales volume since 2000, fluid milk is one of the fastest-growing dairy segments in South China. Sales in 2005 approached \$4.1 billion. But the market for fluid milk is also characterized by low margins and stiff competition. One of the major ongoing battles is between UHT and "fresh" fluid milk products.

The majority of UHT milk is produced in the north tends to have a higher gross profit rate because it benefits from a longer shelf life and cheaper, easier distribution. Fresh chilled products are produced more locally, as close proximity to major population centers eases transportation demands of these perishable products. In South China, northern UHT giants Yili and Mengniu have managed to capture a large share of the fluid milk market, largely due to their vast distribution and marketing resources.

Currently, UHT milk accounts for roughly two-thirds of all fluid milk sales nationwide. But fresh milk has the potential to stage a comeback. Consumers in South China traditionally value freshness and many are switching to fresh milk as it becomes more readily available. This advancement in availability and quality is a result of improved cold-chain distribution channels.

Recently the marketing of fresh milk has caught a snag. On October 1, 2005, the government's "General Rule on Labeling of Pre-Packaged Foods – GB7718-2004" was put into effect. This law prohibits the labeling of pasteurized, non-UHT milk as "fresh." Only raw milk can be labeled as "fresh." Instead, non-UHT milk must be labeled as "pasteurized" or "pure," terms that convey no image of freshness to Chinese consumers. Some processors are fighting to change this regulation, but the future of the law remains uncertain.

As a whole, the fluid milk market has benefited from consumers switching from powdered to fresh milk. While the entire fluid milk market is expanding rapidly, some of the biggest gains may come from reduced-fat milks as consumers become more health-conscious. Newly introduced low-lactose milk is also growing in interest.

Soy Milk: A sizable but stable market

With 2005 sales of over \$440 million, soy beverages compose a significant portion of the dairy products market. In South China, many consumers purchase freshly made cups of soy milk from street vendors for a quick breakfast on the way to work. At the same time, many younger consumers dislike the distinctive soy bean-like taste of soy milk and opt for flavored soy drinks instead. As a result, companies like Bright Dairy are putting more effort into developing new soy milk products. According to Euromonitor statistics, sales over the next five years are expected to increase at a stable pace of less than 5 percent each year, significantly behind growth of other dairy products.

Powdered Milk: Still a mainstay, but growth is slowing

Sales of milk powder reached \$1.6 billion in 2005. This signifies a 9.7 percent gain over 2004, and a total increase of nearly 50 percent since 2000. The long shelf life, low cost and ease of preparation make it an attractive product for many consumers. However, the market for powdered milk is relatively mature compared to other dairy products, and growth is expected to slow over the next five years. Growth that does occur within this category will be driven by the introduction of fortified milk powders targeting the elderly, pregnant women and women. Penetration into rural markets will also play a key role as more urban consumers switch to fresh milk.

Yogurt: Health benefits and fun flavors spur growth

Another fast-growing product in China is yogurt. It has grown at an annual rate of 23 percent since 2000, with the largest gains coming from fruited and drinking yogurt. Sales in 2005 totaled \$582 million. Yogurt is an attractive product for many companies, as the profit margin is typically much higher than for fluid or powdered milk. It's also a much harder market to enter, due to the advanced production techniques needed. As a result, there is slightly less competition among yogurt than many other dairy products.

As the yogurt market continues to expand, many new yogurt products are introduced each year. Recent popular additions are fruited yogurts, sugar-free yogurt, and bio-drinking

yogurt. Bio-yogurt claims to improve intestine function and aid in digestion. Many of these products are especially popular among middle-class working women.

Fruited yogurt sells at a small premium to flavored yogurt. The most popular flavors in 2005 were strawberry, peach, blueberry, pineapple, orange, grape and aloe. Part of the attraction to aloe yogurt comes from its high vitamin E content, which has been linked to better skin health. This example illustrates the growing interest in multi-function health foods.

Ice Cream: Poster child for Chinese dairy consumption

Ice cream can be found virtually everywhere in South China from convenience stores to fast food outlets and from supermarkets to street vendors, making it one of China's most visible signs of dairy consumption. In 2005 alone, sales of dairy ice cream totaled nearly \$2 billion. Thanks to its strong economy and long, hot summers, South China boasts the highest per-capita consumption of ice cream in the country. Sales in the region have expanded by over 56 percent since 2000 and are expected to gain an additional 40 percent by 2010.

No longer a seasonal treat, ice cream is now positioned as a year-round snack food. Sales are exploding, and they're doing it one cone at a time. Impulse buys of single-serving ice cream account for an astonishing 98 percent of sales in this vast and growing market. Although enjoyed by young and old alike, ice cream is especially popular among China's single-child population. This demographic flocks to freezer cases, spending one to two yuan (US 12-25 cents) for an ice cream treat. It is clear that these cheap, convenient products are favorites, as purchases of ice cream for 2 yuan or less account for roughly 80 percent of total ice cream sales.

While inexpensive local brands dominate the market, premium international brands enjoy a small but growing market among affluent white-color workers in the region. The same is true for take-home ice cream products. Take-home ice cream is a relatively new concept in China, but its small demand is rapidly growing through supermarket sales in big cities.

Traditional ice cream flavors like chocolate and vanilla are mainstays, but trendy new flavors with fun names seem to spur sales. Recent fashionable flavors include aloe, cappuccino, milk tea and various fruits. Traditional flavors such as red bean are also common.

In addition to dairy ice cream, water "ice cream" is also very popular with consumers, especially during the summer months. In fact, water ice cream sales in 2005 totaled \$1.6 billion. While water ice cream sales are expected to continue at a healthy pace, many consumers are switching to more nutritious, higher-quality dairy ice cream.

Cheese: A niche market with explosive growth

Cheese is not a food found in traditional Chinese diets, and it has only recently been made available on the market. Consequently, cheese is a tiny market in China, with sales of just \$49.7 million in 2005. As the Chinese become more familiar with cheese, largely thanks to exposure at Western fast-food giants McDonald's, KFC and Pizza Hut, sales are growing rapidly. In fact, 2005 sales jumped 18% from 2004, marking a 123 percent increase since 2000. Volume of cheese sales for the year reached 4,160 MT.

Despite this remarkable growth, cheese is still very much a niche market. Per-capita consumption of cheese in China is about one-third of a pound- less than one percent of U.S. cheese consumption. A big challenge to marketing cheese is that many Chinese find it hard

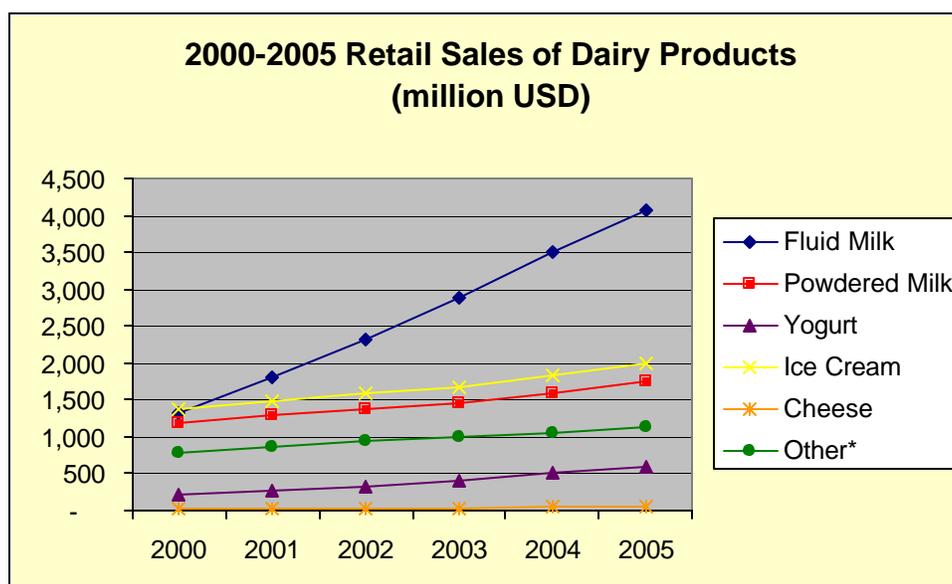
to digest. There is also limited product availability, especially in rural areas, and cold-chain distribution is relatively undeveloped. Furthermore, many people simply don't know what to do with it.

Processed cheese currently dominates the retail market, while unprocessed cheese is relegated to expatriate stores, high-end grocers and select foodservice channels. Spreadable cream cheese makes up roughly a third of this market; the rest is composed mainly of processed cheese slices. Although most cheese is imported from Australia and New Zealand, Chinese companies such as Bongrain Foods and Bright Dairy are now offering cheeses locally produced, or at least locally packed. These local products, marketed under the Pikifou and Bright labels, enjoy an advantage in retail price and market presence. They are also taking the lead in consumer education, a key to sustaining market growth.

Still a market in its infancy, there are many promising signs for continued growth. Cheese continues to grow in popularity, especially among urban young people who enjoy Western lifestyles. It is also making strides among health-conscious consumers, particularly women looking for an easy, tasty way to increase calcium and protein intake levels for themselves and their children.

As demand continues to rise, opportunities will expand for cheese importers. China has little experience in cheese-making and in most cases lacks the expertise and high-tech equipment necessary for production. Also, China's entry into the WTO has drastically reduced import tariffs, making imported cheese more affordable to consumers.

FIGURE 3



*Includes soy beverages, coffee whitener, flavored milk drinks and condensed/evaporated milk
Source: Euromonitor

VI) Product Price and Packaging

Product packaging is very important to Chinese consumers. Food safety is a major concern, as well as quality and freshness. Consumers demand packaging that can deliver these characteristics but is also convenient. Moreover, many Chinese consumers still prefer to buy single-serving containers of dairy products like fluid milk, yogurt and ice cream, despite cost savings from more bulk purchases. This is in line with the Chinese custom of shopping daily and buying small quantities of food at a time, resulting from a value for freshness as well as space and storage constraints.

The table below summarizes price and packaging information from convenience stores, neighborhood supermarkets and hypermarkets in and around downtown Guangzhou. The table is merely meant as an overview of some common dairy products in South China, and is by no means an exhaustive or omniscient listing.

TABLE 2: Survey of South China Dairy Products

Product	Packaging	Size	Price Range (RMB)	Price Range (USD)
UHT Milk	Tetra pack aseptic carton	250 ml	1.60 - 3.20	.20 - .40
	Tetra pack aseptic carton	1 L	4.60 - 6.80	.57 - .84
Fresh Milk	Gable-top carton	200 ml	2.30 - 3.50	.28 - .43
	Gable-top carton	946 ml	6.50 - 9.50	.80 - 1.17
Soy Milk	Plastic Bottle	1.5 L	10.00	1.23
Powdered Milk	Unfortified	400 g	12.20 - 15.50	1.51 - 1.91
	Fortified	400 g	17.50 - 24.50	2.16 - 3.02
Yogurt	Plastic bottle w/ screw-top lid	650 ml	6.00 - 9.50	.74 - 1.17
	Individual plastic cup w/ foil lid	150 ml	1.80 - 3.00	.22 - .37
Ice Cream	Individual cones, cups and stick desserts with paper or plastic wrapper	80 - 100 g	2.00 - 8.00	.25 - .99
	Domestic, Standard	250 g	4.90 - 12.00	.60 - 1.48
	Imported, Premium	392 g	75.00 - 95.00	9.26 - 11.73
Cheese	Processed Slices	12 slices/250g	24.50 - 25.70	3.02 - 3.17
	Cream Cheese	250 g	22.00 - 29.80	2.71 - 3.68
	Imported block	250g	25.00 - 29.80	3.09 - 3.68
Butter	Wax paper in cardboard box	227 g	6.80 - 13.40	.83 - 1.65
*1 USD = 8.1 RMB				

Price has long been a barrier to milk consumption, which is not surprising considering the cost of dairy products relative to other foods. In fact, while many foods in China cost less than half their U.S. counterparts, dairy product prices in China are often similar or even higher than those in the U.S. UHT milk, for example, costs roughly the equivalent of \$3.00 per gallon. Fresh milk, on the other hand, is usually more than \$4.00 per gallon. At about \$2.50 per gallon on a reconstituted basis, powdered milk is the cheapest milk option. To put some of the other products into perspective, cheese costs the equivalent of over \$5.50 per pound, while butter is around \$2.50 per pound and yogurt costs \$.75 cents to \$1.00 per pint.

VII) Snapshot of Consumer Buying Habits

CARD's dairy survey³ provides a good snapshot into the buying patterns of the urban Chinese consumer. On average, today's consumers purchase milk three times a week, buying four to five single-serving packages at a time. Other packages are purchased less frequently, roughly once or twice every two weeks. Households far away from city centers or those with elderly residents buy more milk powder, while yogurt is most popular with younger, well-educated consumers. Ice cream is favored in households with children and younger parents.

Location of purchase is also important. In Guangzhou, roughly three-fourths of residents make purchases of milk and yogurt in supermarkets. Neighborhood grocery stores and home delivery also account for a large percentage of purchases, with delivery points, schools and street vendors playing a smaller but significant role in the distribution of these products. Corner stores and street vendors are a main purchase point for ice cream, while most cheese purchases occur indirectly in western-style restaurants.

Although the link between school milk programs, media advertisements and buying patterns remains unclear, research indicates that in-store advertisements have been successful at boosting dairy sales.

VIII) Fierce domestic competition drives out foreign investors

In the late 1990s, China had only 700 dairy processors. By 2004, this number more than doubled to over 1,600 as more companies entered the market hoping to cash in on the country's escalating dairy consumption habits. This plethora of companies has led to intense competition within the industry. To date, three companies have emerged as leaders. Inner-Mongolian companies Yili and Mengniu, combined with Shanghai's Bright Dairy, enjoy a combined 42.36 percent market share. Still, price wars continue to plague the industry. A double-edged sword, this competition has helped make dairy products more affordable to consumers. It has also caused already small margins to quickly recede, forcing many less efficient processors out of business. After the initial explosion of dairy companies, extensive consolidation is expected in a reconstruction of the industry.

Many foreign companies have also felt the squeeze. Eager to cash in on the growing demand, multinational companies like Danone, Kraft, Parmalat, Unilever and Friesland Coberco entered the Chinese market only to retreat a short time later after heavy losses. Until recently, only a few companies- Nestle, Mead Johnson and Wyeth- remained as major players. But after a few years hiatus from the chaotic Chinese market, some companies are coming back. In the second half of 2005, Fonterra, Arla Foods and Danone SA have invested heavily in joint ventures with some of China's biggest processors. Maintaining a successful

³ Fuller, Frank H., John C. Beghin, and Scott Rozelle. "Urban Demand for Dairy Products in China: Evidence from New Survey Data." Center for Agricultural and Rural Development, Iowa State University. Nov. 2004.

position in the industry will depend on access to developed distribution networks, effective marketing, brand management and offering safe, high quality products.

IX) Local supplies continue to grow

According to China's National Statistics Bureau, domestic milk production reached 23.7 million MT in 2004. This is more than double the domestic production in 2000, thanks to increased cow numbers and improvements in production per cow. In 2004, China's 5.5 million dairy cows produced an average of 4 MT per cow. Water buffalo also play a significant role in milk production, yielding over 1 million MT of the milk supply in 2004.

Agricultural experts say an ongoing national dairy technology-upgrading project has greatly improved cow breeding and feeding efficiency. The \$49 million dairy project, part of the government's 10th Five-Year Plan (2001-05), has made vast improvements to the industry. The project has worked to overcome major obstacles to dairy industry development such as shortage of well-bred cows, low feeding efficiency, the poor quality of raw milk and a low technological level in dairy product processing. The China Dairy Association estimates that in the coming 10-15 years, the domestic dairy industry will develop at an annual speed of 6 to 9 percent.

The majority of domestic production takes place in the north and west and near metropolitan areas such as Beijing or Guangzhou. Dairies in Guangdong Province were originally established to service the Hong Kong Market, which provided much higher prices for liquid milk than the mainland. Today, these dairies are producing more and more milk for the local market. However, they struggle to maximize production efficiency due to a lack of high-quality forages and the hot and humid climate of South China.

X) New labeling requirements for reconstituted milk products

Much of China's yogurt, ice cream, and even UHT milk is produced using reconstituted dry milk powder. In many cases, this powder can be imported and used as the main ingredient in these products at a lower cost than local raw milk supplies. Some powdered milk was even being used in products labeled as "fresh." However, On September 18, 2005, the State Council issued the "Notice of Strengthening Management on Fluid Milk Production and Marketing" requiring that only raw milk is allowed for pasteurized milk and strongly recommending raw milk for UHT milk.

On September 30, 2005, the Ministry of Agriculture (MOA) announced the "Identification of Reconstituted Milk in Pasteurized and UHT Milk" to serve as an industry test standard since there is no national standard. The notice will likely keep some consumers away from reconstituted milk because urban, wealthier Chinese pay more attention to health and they prefer fresh products. This will force producers to adjust product patterns to develop more value-added products such as flavored yogurt, infant formula milk powder, adult functional milk powder or more varieties of flavored UHT milk.

From October 15, 2005, producers should state clearly on labels "reconstituted milk" and the percentage used in the ingredients list. It requires that plants intending to use reconstituted milk for fluid products should register prior production with local quality supervision agency including the information on 1) imported or domestically procured milk powder quantity, quality, place and name of milk powder plant; 2) beginning date and length of production; 3) quantity of fluid products with reconstituted milk and the percentage of each batch of finished products and 4) marketing areas of fluid products with constituted milk. Any change

should be notified to the agency 15 days in advance. Without registration, the Administration of Industry and Commerce will not issue production license.

The new notice could lead to a decrease in milk powder imports because most imported milk powder is reconstituted for fluid products, especially after import tariffs for milk powder dropped this year. The raw milk industry indicates that China imported 121,488 MT of milk powder in 2004. If this powder is reconstituted (multiply by 8), the volume would equal the same quantity of raw milk produced by 242,976 head of cows for an entire year, thus affecting the livelihood of many dairy farmers. The U.S. is the third-largest milk powder supplier to China's market with sales of \$12.6 million in 2005.

XI) U.S. becomes second-largest dairy exporter to China

In 2000, the U.S. ranked fourth in the world for dairy exports to China, with annual sales of \$20.1 million. Since then, exports have more than tripled to \$60.5 million in 2005, allowing the U.S. to surpass France and Australia for the title of second largest dairy exporter to China. Volume of sales reached 83,350 MT, up 12 percent from 2004. Over the same time period, value of sales jumped 47.4 percent, marking a nearly 32 percent increase in unit price for U.S. dairy products.

With 13.2 percent of sales and 26.0 percent of volume, the U.S. is still far behind New Zealand, who has market shares for sales and volume of 48.4 and 30.1, respectively. However, strong U.S. exports are expected to continue, while dry weather in New Zealand and Australia limit exports from the number one and number three exporters to China. The devalued U.S. dollar, as well as quota production constraints and reduced dairy subsidies in the EU, will also continue to favor imports of U.S. products. China is now seventh largest market for U.S. dairy products by value and ranks tenth in terms of export volume.

The total value of China's dairy imports rose 3.3 percent in 2005 to reach \$460 million. At the same time, the quantity of imports totaled 320,000 MT, a decline of 7.7 percent over 2004. As domestic production continues to grow, the future of dairy imports rests largely with public demand.

Table 3: U.S. Dairy Exports to China

Product	Value (1,000 USD)			% Change from 2004	Market Share (%)	2005 Rank
	2003	2004	2005			
Fluid Milk	0	0	2	8	0.03	12
Powdered Milk	4,546	9,123	12,646	38.62	5.37	3
Yogurt	16	35	25	-28.4	1.75	11
Whey	25,187	30,992	46,378	49.64	29.4	1
Dairy & Butter Spreads	421	12	36	190.75	0.11	16
Cheese & Curd	487	912	1,471	61.3	5.57	3
Total:	30,657	41,075	60,558	47.43	13.20	2

Source: Global Trade Atlas

XII) Useful Contact Information**Agriculture Affairs Office Beijing**

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Appendix I. Dairy Tariff Table

Tariffs on Dairy Products, Effective January 1, 2005

		MFN	General	V.A.T	Effective Rate (MFN & VAT) 1/
Fluid Milk	0401.1000	15.0%	40.0%	17.0%	34.89%
	0401.2000	15.0%	40.0%	17.0%	34.89%
	0401.3000	15.0%	40.0%	17.0%	34.89%
Powdered Milk	0402.1000	10.0%	40.0%	17.0%	29.89%
	0402.2100	10.0%	40.0%	17.0%	29.89%
	0402.2900	10.0%	40.0%	17.0%	29.89%
	0402.9100	10.0%	90.0%	17.0%	29.89%
	0402.9900	10.0%	90.0%	17.0%	29.89%
Yogurt	0403.1000	10.0%	90.0%	17.0%	29.89%
	0403.9000	20.0%	90.0%	17.0%	39.89%
Whey	0404.1000	6.0%	30.0%	17.0%	25.89%
	0404.9000	20.0%	90.0%	17.0%	39.89%
Butter & Dairy Spreads	0405.1000	10.0%	90.0%	17.0%	29.89%
	0405.2000	10.0%	90.0%	17.0%	29.89%
	0405.9000	10.0%	90.0%	17.0%	29.89%
Cheese	0406.1000	12.0%	90.0%	17.0%	31.89%
	0406.2000	12.0%	90.0%	17.0%	31.89%
	0406.3000	12.0%	90.0%	17.0%	31.89%
	0404.4000	15.0%	90.0%	17.0%	34.89%
	0404.9000	12.0%	90.0%	17.0%	31.89%

Source: China Customs